

Technical Data  
Data Sheet 3155, Rev. -

## Power Surface Mount Schottky Rectifier (200V, 120Amp)

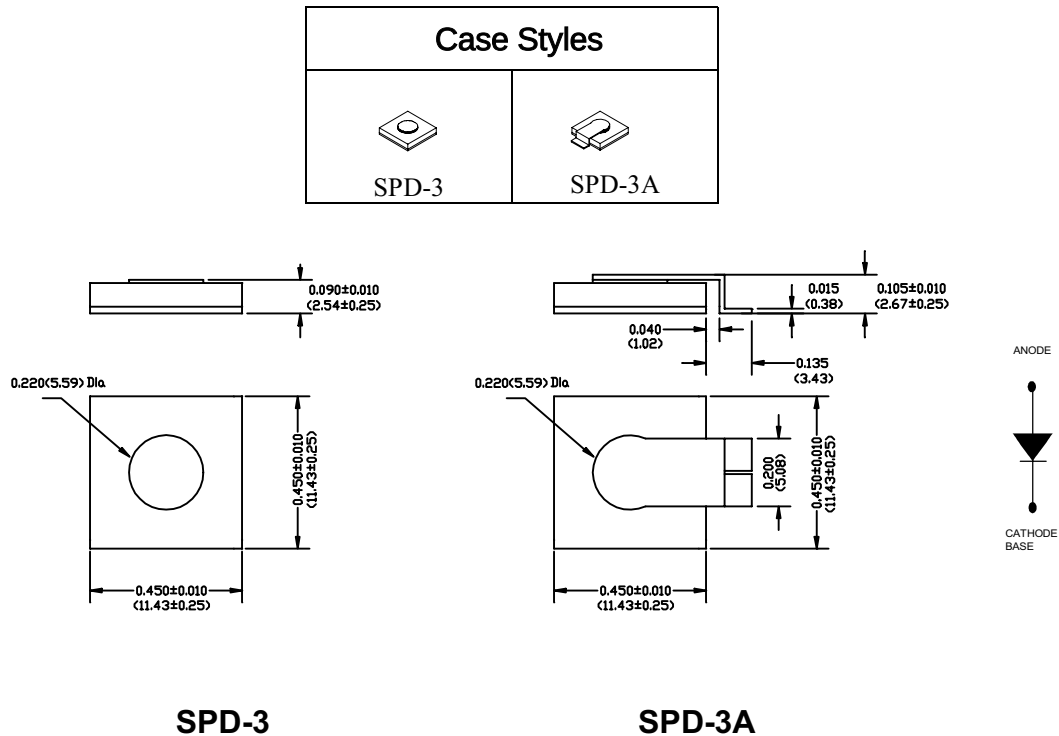
### Applications:

- Switching power supplies • Converters • Reverse battery protection
- Redundant power subsystems • Many other high current AC/DC power supplies.

### Features:

- 175°C T<sub>J</sub> operation
- Low forward voltage drop
- Low reverse leakage current
- High surge capacities
- Low power loss, high efficiency
- Guaranteed reverse avalanche capability
- High frequency operation
- Low profile surface mount package

### Mechanical Dimensions: In Inches / mm



Suffix "R" Denotes Reversed Polarity

**Data Sheet 3155, Rev. -**  
**Maximum Ratings:**

| Characteristics                                  | Symbol      | Condition                             | Max. | Units |
|--------------------------------------------------|-------------|---------------------------------------|------|-------|
| Peak Inverse Voltage                             | $V_{RWM}$   | -                                     | 200  | V     |
| Max. Average Forward Current                     | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form | 120  | A     |
| Max. Peak One Cycle Non-Repetitive Surge Current | $I_{FSM}$   | 8.3 ms, Sine pulse                    | 1650 | A     |

**Electrical Characteristics:**

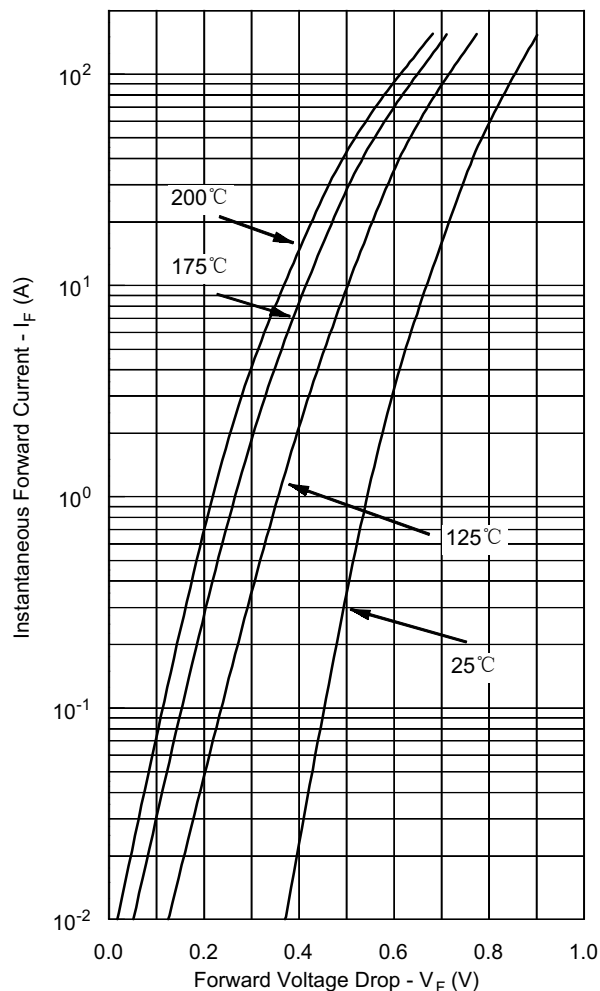
| Characteristics           | Symbol   | Condition                                                                                                                 | Max. | Units |
|---------------------------|----------|---------------------------------------------------------------------------------------------------------------------------|------|-------|
| Max. Forward Voltage Drop | $V_{F1}$ | @ 120 A, Pulse, $T_J = 25\text{ }^{\circ}\text{C}$                                                                        | 0.95 | V     |
|                           | $V_{F2}$ | @ 120 A, Pulse, $T_J = 125\text{ }^{\circ}\text{C}$                                                                       | 0.79 | V     |
| Max. Reverse Current      | $I_{R1}$ | @ $V_R = 200\text{ V}$ , Pulse, $T_J = 25\text{ }^{\circ}\text{C}$                                                        | 2.1  | mA    |
|                           | $I_{R2}$ | @ $V_R = 200\text{ V}$ , Pulse, $T_J = 125\text{ }^{\circ}\text{C}$                                                       | 48   | mA    |
| Max. Junction Capacitance | $C_T$    | @ $V_R = 5\text{ V}$ , $T_C = 25\text{ }^{\circ}\text{C}$<br>$f_{SIG} = 1\text{ MHz}$ ,<br>$V_{SIG} = 50\text{ mV (p-p)}$ | 1800 | pF    |

**Thermal-Mechanical Specifications:**

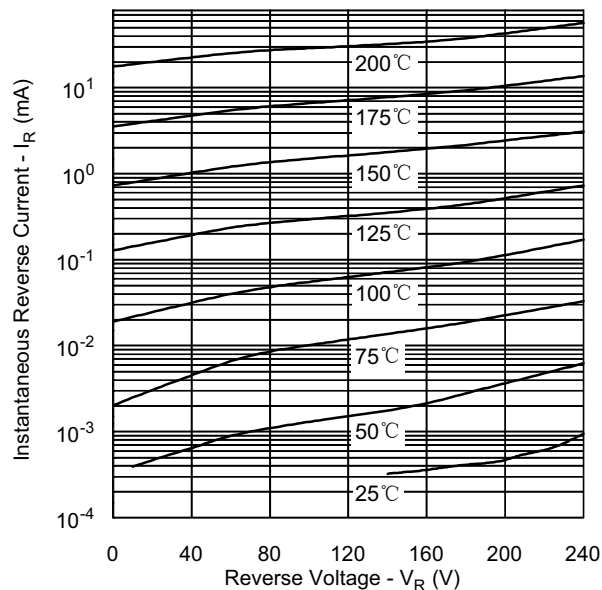
| Characteristics                          | Symbol          | Condition    | Specification | Units                |
|------------------------------------------|-----------------|--------------|---------------|----------------------|
| Max. Junction Temperature                | $T_J$           | -            | -55 to +175   | $^{\circ}\text{C}$   |
| Max. Storage Temperature                 | $T_{stg}$       | -            | -55 to +175   | $^{\circ}\text{C}$   |
| Max. Thermal Resistance Junction to Case | $R_{\theta JC}$ | DC operation | 0.20          | $^{\circ}\text{C/W}$ |
| Case Style                               | SPD-3/A         |              |               |                      |

Data Sheet 3155, Rev. -

**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**

